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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/438,645	11/12/1999	BRIAN GARRY JENKIN	JA999-715	9655
7590	10/06/2003		EXAMINER	
International Business Machines Corporation Almaden Research Center 650 Harry Road San Jose, CA 95120			TODD, GREGORY G	
			ART UNIT	PAPER NUMBER
			2157	18
DATE MAILED: 10/06/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/438,645	JENKIN, BRIAN GARRY
	Examiner Gregory G Todd	Art Unit 2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 15 September 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 2-6, 10, 12-18 and 22 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 2-6, 10, 12-18, and 22 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____.
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>14</u> .	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

Response to Amendment

1. This is a third office action in response to applicant's amendment filed, 15 September 2003, of application filed, with the above serial number, on 12 November 2000 in which claims 2 and 10 have been amended. Claims 2-6, 10, 12-18, and 22 are therefore pending in the application.
2. It is noted the supplemented response, paper 17, does not contain or mention the status of claim 3.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 2 recites the limitation "said measuring step (c)" in line 20. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 6 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The step (c) to comprise returning a result to the client and being measured should be directed to step (d).
6. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 recited a step (e) which is currently present in claim 2.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (hereinafter "Wang", 6,446,028) in view of Friedrich et al (hereinafter "Friedrich", 5,958,009).

9. As per Claim 2, Wang discloses a method for testing performance of a server running a chosen computing application, wherein Wang discloses:

(a) forming on the client a first collection of a number of live maps (packet requests sent real-time), wherein such a live map includes i) identification of a transaction for actual processing of the transactions by the server running a chosen computing application (at least col. 7, lines 4-18), and ii) data for the chosen application, including data formed at the client application layer, and wherein the chosen computing application of the transaction for such a live map is the same (at least col. 3, lines 10-16, 43-57) for each of the live maps in the collection (at least col. 2, lines 6-16; col. 5, lines 9-26);

(c) transmitting a first processing load from the client to the server running said computing application, wherein the processing load includes the first collection of the

number of said live maps for a plurality of said transactions (server processing request consisting of multiple packets) (at least Fig. 6; col. 6, lines 48-63);

(d) measuring one or more performance criteria resulting from said server actually processing said load, wherein the measuring is performed by the client or the server (at least Fig. 7; col. 2, lines 17-29; col. 7, lines 19-30; col. 5, lines 27-55); and

(e) changing the first collection of live maps and transmitting a next processing load from the client to the server, the next processing load including the changed collection of live maps in order to selectively vary said processing loads, wherein the changing includes changing the number of said live maps and types of said transactions in the first collection of live maps transmitted to said server, and wherein said measuring step (c) is repeated for the next processing load (processing additional database queries via server requests from the client) (at least col. 8, lines 21-31).

Wang fails to explicitly disclose (b) passing the collection from the client application layer to the client middleware layer. However, the use and advantages for using such a protocol is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Friedrich. Friedrich discloses client-server performance monitoring via middleware layers capturing data from an application layer (at least col. 11 line 1 - col. 12 line 9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of Friedrich's middleware - application layer model into Wang's system as Friedrich discloses this offers more quality of service features such as timestamping and better correlation of performance data.

10. As per Claim 3.

(e) comparing performance criteria against predetermined performance measures to determine whether server's capacity is satisfactory (overall performance monitoring) (at least col. 1, lines 31-46, 56-60; col. 4, lines 28-32).

11. As per Claim 4.

performance criteria include average response time for a transaction within such a load (approximate total transit time) (at least Fig. 7; col. 2, lines 17-29).

12. As per Claim 5.

performance criteria include the proportion of server CPU time taken by a transaction of such a load (server processing time) (at least Fig. 7; col. 7, lines 19-30).

13. As per Claim 6.

wherein step (c) comprises for each transaction within said load, returning a result to said client (at least Fig. 5); and

measuring, by said client or by said server, the one or more performance criteria responsive to the processing of said load by said server (at least Fig. 7; col. 2, lines 17-29; col. 7, lines 19-30; col. 5, lines 27-55).

14. Claims 10, 12-18, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (hereinafter "Wang", 6,446,028) in view of Friedrich et al (hereinafter "Friedrich", 5,958,009) and further in view of Chen et al (hereinafter "Chen", 5,812,780).

15. As per Claim 10, Wang discloses a system for testing server performance, wherein Wang discloses:

- (a) a server running a chosen computing application (at least col. 3, lines 43-57);
- (b) a client emulation server (“client”) representing a plurality of individual client computing stations, said client emulation server including a first collection of a number of live maps, wherein a live map includes i) identification of a transaction for actual processing of the transactions by the server running the chosen computing application (at least col. 7, lines 4-18), and ii) data for the chosen application, and wherein the chosen computing application of the transaction for such a live map is the same (at least col. 3, lines 10-16, 43-57) for each of the live maps in the collection (at least col. 2, lines 6-16; col. 5, lines 9-26); and
- (c) a communications connection between said client and said server (at least col. 3, lines 43-47), wherein said client is operable to transmit a first processing load to said server via said communications connection, the processing load including the first collection of said live maps for a plurality of said transactions, said server is operable to actually process said load (server processing request consisting of multiple packets) (at least Fig. 6; col. 6, lines 48-63), wherein said server or client but not necessarily both the server and client, is operable to measure one or more performance criteria resulting from the server processing said load (at least Fig. 7; col. 2, lines 17-29; col. 7, lines 19-30; col. 5, lines 27-55), and wherein said client is further operable to change the first collection of live maps and transmit a next processing load to the server. the next processing load including the changed collection of live maps, in order to selectively

vary said processing loads, wherein the changing includes changing the number of said live maps and types of said transactions in the first collection of live maps, and the first server or client is operable to repeat the measuring for the next processing load (processing additional database queries via server requests from the client) (at least col. 8, lines 21-31).

Wang fails to explicitly disclose wherein a computing operation performed by the client resides in an application layer that communicates with a middleware layer on the client. However, the use and advantages for using such a protocol is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Friedrich. Friedrich discloses client-server performance monitoring via middleware layers capturing data from an application layer (at least col. 11 line 1 - col. 12 line 9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of Friedrich's middleware - application layer model into Wang's system as Friedrich discloses this offers more quality of service features such as timestamping and better correlation of performance data.

Wang and Friedrich fail to explicitly disclose a client representing a plurality of individual client computing stations, said client including a first collection of a number of live maps. However, the use and advantages for using such a simulation model is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Chen. Chen discloses a single computer/workstation acting as multiple systems and requests under a simulation (at least Chen col. 4, lines 34-51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to incorporate the use of Chen's single workstation representation with Wang and Friedrich's collection of live maps (at least Wang col. 2, lines 6-16; col. 5, lines 9-26) because this would ease the process of testing server performance by having a single system acting as multiple systems when multiple systems are not an alternative due to expenses or unforeseen client expansion.

16. As per Claim 12

wherein said server compares said measured performance criteria against predetermined performance measures to determine whether the server has satisfactory capacity (overall performance monitoring) (at least col. 1, lines 31-46, 56-60; col. 4, lines 28-32).

17. As per Claim 13.

wherein said server stores a file of said performance data measures (measurement database) (at least Fig. 9).

18. As per Claim 14.

wherein said client stores a file of said performance data measures (client measurement stub code) (at least Fig. 3).

19. As per Claim 14.

server produces an output representing performance data measures (at least Fig. 9).

20. As per Claim 15.

wherein said performance data criteria includes the average response time for a transaction within one of said loads (approximate total transit time) (at least Fig. 7; col. 2, lines 17-29).

21. As per Claim 16.

wherein said performance data criteria includes the proportion of server CPU time taken by such a transaction of said loads (server processing time) (at least Fig. 7; col. 7, lines 19-30).

22. As per Claim 17.

wherein said server has connection to one or more database servers, said database servers being operable to execute portions of said load transactions (at least Fig. 5, 9).

23. As per Claim 18.

wherein said server comprises a plurality of servers, and each of said server plurality has connection to one or more database servers, said database servers being operable to execute portions of said load transactions (at least Fig. 5, 9; col. 11, lines 1-2).

24. As per Claim 22.

at least one database in communication with said server (at least Fig. 5, 9).

Response to Arguments

25. Applicant's arguments filed 10 July 2003 have been fully considered but they are not persuasive. The applicant argues, substantially, that Wang does not suggest the

transactions of the live maps being for the same computing application and in fact, uses more than one application.

In response, as previously noted, Wang clearly discloses the server application being the SAP R/3 server application (at least col. 3, lines 10-16, 43-57), but also states it could be any application and is not limited to the SAP R/3. Also, that the client uses a similar associated SAP R/3 client application program. Thus the performance of the server is measured and monitored with the same server application as newly amended by the applicant.

26. Applicant's arguments filed 28 August 2003 have been fully considered but they are not persuasive. Applicant argues measuring is performed by the client or the server and Wang discloses a third system to measure.

In response, however, as previously stated, a "server" can be represented as being multiple servers and is rarely a single server and so that in the Wang reference, the monitor is acting as being on the server system in one embodiment as Wang discloses his measurement monitor (490) and server computer system (480) as acting as one and being in the same physical location and retrieving and transmitting the same data in Fig 4.

Conclusion

27. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Newly cited Kaler et al and Mukherjee et al (paragraph 23) in addition to previously cited Baghai et al, Caccavale et al, Davies et al, Sherman et al, Chen et al, Wagle, Dantressangle, Braddy, Congdon, Hoyer et al, Eilert et al, and Richardson are cited for disclosing pertinent information related to the claimed invention. Applicants are requested to consider the prior art reference for relevant teachings when responding to this office action.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory G Todd whose telephone number is (703)305-5343. The examiner can normally be reached on Monday - Friday 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703)308-7562. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Gregory Todd
Patent Examiner
Technology Center 2100



ARIO ETIENNE
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